tion of the pyramidal tract, and consequent obliteration of the cortical reflex; this interruption may also occur at the beginning of the tract—that is, the motor cortex (epilepsy). This reflex, depending upon organic changes, the author describes as "genuine."

Secondly, if, as a result of general increase of the spinal reflexes (strychnine, diseases resulting in increased reflexes without lesions of the pyramids), or from conditions which diminish the reflex irritability of the cortex (stupor, œdema), the spinal reflex becomes as easily or more easily obtainable than the cortical reflex, then as a result of the dynamic excess of the spinal reflex the cortical reflex may be suppressed and apparently wholly wanting. Thus the typical picture of Babinski's reflex may arise without lesion of the pyramidal tract.

We are not in a position to separate positively this variety of Babinski's phenomenon, with suppression of the cortical reflex, from that with destruction of the cortical reflex; it is then impossible, in a condition of general increased reflex irritability, to make the diagnosis of a pyramidal lesion from Babinski's phenomenon alone. However, permanent persistence of Babinski's phenomenon is rare, without destruction of the cortical reflex (a single plantar flexion among a large number of dorsal flexions shuts out a genuine Babinski reflex); and since the genuine Babinski's phenomenon is present or develops almost always in lesions of the pyramidal tract, this reflex is of practical value in separating pyramidal lesions from similar pictures.

The Alkalinity of the Blood in Physiological and Pathological Conditions.—ORLOVSKY (*Vratch*, 1901, xxii., 1190, 1222), after a review of the literature and control tests of various methods, gives the results of a considerable number of observations on animals and human beings which lead him to the conclusion that:

1. The previous methods of determining the alkalinity of the blood give varying results even in healthy individuals, and should, therefore, be finally abandoned.
2. Constant results are only to be obtained by methods which determine the alkalinity in the laky blood; these methods alone have a *raison d'être*.
3. Variations in the alkalinity of the blood noted in various diseases and in one and the same disease by various investigators working according to old methods (Landois-Jaksch's, etc.), depend upon the varying isotonicity of the blood and its varying richness in red corpuscles in different cases.
4. The variation of the alkalinity of the blood noted by authors employing titration of laky blood depends upon the variation in number of red blood-corpuscles.
5. The alkalinity of the blood-plasma is markedly diminished in cancerous cachexia, in advanced uræmia, and in severe diabetes mellitus.
6. In other diseases the alkalinity of the blood-plasma remains unchanged, or, if it does differ from the normal, shows but slight and exceptional variations.

The diminution in the alkalinity of the blood in uræmia, diabetes, and cancerous cachexia depends upon the accumulation in the blood of acid products of metabolism. The direct dependence of diabetic coma upon an acid auto-intoxication is generally recognized, and the use of alkalies internally is, as is well known, often advised. The author has carried on a series of experiments upon the normal subject to determine the best method of administering alkalies. As a result of investigations in six cases, he finds that: (1) a single dose of bicarbonate of soda produces a relatively unimportant and very transient increase in the alkalinity of the blood; (2) warm alkaline enemata increase the alkalinity of the blood appreciably more than the administration of corresponding quantities of alkalies by mouth; (3) this increase in the alkalinity of the blood is slight and of short duration.

In two cases of diabetes the author was able to show clearly that: (1) the administration of alkalies increases the alkalinity of the blood and of its plasma to an appreciably higher degree than in healthy individuals; (2) warm alkaline enemata increase the alkalinity of the blood and of its plasma appreciably more than doses of alkalies of the same quantity by mouth; (3) this increase in the alkalinity of the blood is of short duration, but lasts longer when the alkalies are administered by rectum.

The author believes that these results are important as indicating the advisability of treatment by alkaline enemata at the first evidence of diabetic coma. The administration of alkali should be continued well after the removal of the immediate danger, as otherwise the alkalinity of the blood will rapidly fall again.

On the Influence of Formic Aldehyde upon the Metabolism of Children. —TUNNICLIFFE and ROSENHEIM (*Journal of Hygiene*, July, 1901, p. 321), as a result of very careful experiments on the effect of formic aldehyde on the metabolism in children, as well as from a review of the literature, come to the following conclusions:

1. In healthy children formic aldehyde administered with the food in doses up to 1 : 5000 in milk, or 1 : 9000 in total food and drink, exerted no appreciable effect on the nitrogen or phosphorus metabolism or fat assimilation. The analytical figures suggest, however, that formic aldehyde has a tendency to diminish phosphorus and fat assimilation, and hence it may be inferred that in larger doses, or if continued for a longer period, it would act in this direction. This effect is referable to an influence upon pancreatic digestion.

2. In healthy children formic aldehyde in the above doses produces a retention of water in the body.

3. In a delicate child formic aldehyde in the above maximum dose had a chemically measurable deleterious effect upon the nitrogen, phosphorus, and fat assimilation, again referable to an action upon the pancreatic digestion, combined with a slight intestinal irritant action. There was a slight tendency to stimulate the katabolism of proteid material.

4. In a delicate child formic aldehyde increased the volume of urine and the weight of feces.

5. In all cases the excretion of lecithin in the feces was diminished under the influence of formic aldehyde. This effect is probably referable to a stimulating action of formic aldehyde on the lecithin-splitting ferment of the pancreas.